

WHAT IS CLAIMED IS:

1. A method of controlling a fire consuming a combustible object comprising a step of applying a sufficient amount of a fire-fighting composition to the combustible object to retard, suppress, or extinguish the fire, said fire-fighting composition comprising:
- (a) about 0.01% to about 20%, by weight, of a superabsorbent polymer;
- (b) about 0.005% to about 10%, by weight, of a colorant;
- (c) about 0.005% to about 10%, by weight, of an opacifying agent selected from the group consisting of a sparingly water-soluble inorganic compound, a synthetic homopolymer or copolymer, and mixtures thereof; and
- (d) water.
2. A method of preventing a fire from consuming a combustible object comprising a step of applying a sufficient amount of a fire-fighting composition to the combustible object to inhibit initiation of the fire, said fire fighting composition comprising:
- (a) about 0.01% to about 20%, by weight, of a superabsorbent polymer;
- (b) about 0.005% to about 10%, by weight, of a colorant;
- (c) about 0.005% to about 10%, by weight, of an opacifying agent selected from the group consisting of a sparingly water-soluble inorganic compound, a synthetic homopolymer or copolymer, and mixtures thereof; and
- (d) water.
3. The method of claim 1 or 2 wherein the colorant and the opacifying agent are present in a weight ratio of 1 part colorant to about 0.25 to about 5 parts opacifying agent.
4. The method of one of the claims 1 to 3 wherein the opacifying agent and superabsorbent polymer are present in a weight ratio of 1 part opacifying agent to about 1.5 to about 10 parts superabsorbent polymer.
5. The method of one of the claims 1 to 4 wherein the fire is a forest fire, a grass fire, a brush fire, or a wildfire.
6. The method of one of the claims 1 to 5 wherein the combustible objects comprises a man-made structure.
7. The method of one of the claims 1 to 6 wherein the superabsorbent polymer is present in an amount of about 0.05% to about 10%, by weight of the composition.

8. The method of one of the claims 1 to 7 wherein the superabsorbent polymer comprises a polymerized α,β -unsaturated carboxylic acid, or a salt or an anhydride thereof.
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9. The method of one of the claims 1 to 8 wherein the superabsorbent polymer is selected from the group consisting of poly(acrylic acid), a hydrolyzed starch-acrylonitrile graft copolymer, a starch-acrylic acid graft copolymer, a saponified vinyl acetate-acrylic ester copolymer, a hydrolyzed acrylonitrile copolymer, a
- 10 hydrolyzed acrylamide copolymer, an ethylene-maleic anhydride copolymer, an isobutylene-maleic anhydride copolymer, a poly(vinylsulfonic acid), a poly(vinylphosphonic acid), a poly(vinylphosphoric acid), a poly(vinylsulfuric acid), a sulfonated polystyrene, and salts and mixtures thereof.
- 15 10. The method of the claims 1 to 9 wherein the superabsorbent polymer is selected from the group consisting of a poly(vinylamine), a poly(dialkylaminoalkyl (meth)acrylamide), a polyethylenimine, a poly(allylamine), a poly(allylguanidine), a poly(dimethyldiallylammonium hydroxide), a quaternized polystyrene derivative, a guanidine-modified polystyrene, a quaternized poly((meth) acrylamide) or
- 20 ester analog, a poly(vinylguanidine), salts thereof, and mixtures thereof.
11. The method of one of the claims 1 to 10 wherein the superabsorbent polymer comprises polyacrylic acid neutralized about 50% to 100%.
- 25 12. The method of one of the claims 9 to 11 wherein the polyacrylic acid is neutralized with sodium hydroxide, sodium carbonate, potassium hydroxide, potassium carbonate, or a mixture thereof.
13. The method of one of the claims 1 to 12 wherein the colorant is present in an
- 30 amount of about 0.01% to about 5%, by weight of the composition.
14. The method of one of the claims 1 to 13 wherein the colorant is a dye, a pigment, or a mixture thereof.
- 35 15. The method of one of the claims 1 to 14 wherein the colorant imparts a yellow, red, orange, violet, or blue color to the composition.
16. The method of one of the claims 1 to 15 wherein the colorant is selected from the
- 40 group consisting of a direct dye, a basic dye, an acid dye, a reactive dye, a solvent dye, a disperse dye, a leather dye, a natural dye, a sulfur dye, a vat dye, a synthetic pigment, a naturally occurring pigment, a security dye, and mixtures thereof.

17. The method of claim 16 wherein the colorant comprises a direct dye.
18. The method of claim 17 wherein the direct dye is selected from the group consisting of Direct Red 81, Direct Red 239, Direct Red 254, Direct Yellow 11, Direct Yellow 6, Direct Yellow 127, Direct Orange 102, Direct Orange 102:1, Direct Orange 116, Direct Yellow 5, and mixtures thereof.
19. The method of the claims 17 or 18 wherein the colorant comprises Red 51L, Orange 80LN, or Yellow 76LN.
20. The method of one of the claims 1 to 19 wherein the opacifying agent is present in an amount of about 0.01% to about 5%, by weight of the compositions.
21. The method of one of the claims 1 to 20 wherein the opacifying agent is selected from the group consisting of calcium carbonate, a styrene-butadiene copolymer, a styrene-vinylpyrrolidone copolymer, a styrene-butadiene-acrylonitrile copolymer, an acrylic polymer, a polyvinyl acetate, a polyvinyl acrylate, a starch, a polyethylenimine, a polystyrene, a polyethylene, a polyvinyl alcohol, and mixtures thereof.
22. The method of one of the claims 1 to 21 wherein the opacifying agent comprises calcium carbonate.
23. The method of one of the claims 1 to 22 wherein the opacifying agent comprises an emulsion or a latex of the synthetic homopolymer or copolymer.
24. The method of claim 23 wherein the opacifying agent comprises a polyethylenimine.
25. The method of one of the claims 1 to 24 wherein the composition further comprises up to about 10%, by weight, of a water soluble organic solvent.
26. The method of one of the claims 1 to 25 wherein the composition further comprises one or more optional ingredient selected from the group consisting of a viscosity modifier, a dispersant, a pH modifier, a surfactant, and mixtures thereof.
27. The method of one of the claims 1 to 26 wherein the composition imparts a color to the combustible object.
28. The method of claim 27 wherein the color imparted to the combustible object substantially fades within 30 days after application of the composition.

29. The method of claim 27 or 28 wherein the color imparted to the combustible object is of sufficient intensity such that a combustible object having the composition applied thereto is differentiated from the combustible object that lacks an application of the composition by a naked eye.
30. The method of one of the claims 1 to 29 wherein the composition is applied by ground equipment or by aerial equipment.
31. A composition comprising
- (a) about 0.1% to about 5%, by weight, of a superabsorbent polymer;
 - (b) about 0.015% to about 2%, by weight, of a colorant;
 - (c) 0.015% to about 2%, by weight, of an opacifying agent selected from the group consisting of a sparingly water-soluble inorganic compound, a synthetic homopolymer or copolymer, and mixtures thereof; and
 - (d) water.
32. The composition of claim 31 further comprising up to about 10%, by weight, of a water-soluble organic solvent.
33. The composition of claim 31 or claim 32 further comprising one or more optional ingredient selected from the group consisting of a viscosity modifier, a dispersant, a pH modifier, a surfactant, and mixtures thereof.
34. The composition of one of the claims 31 to 33 wherein the colorant and the opacifying agent are present in a weight ratio of 1 part colorant to about 0.5 to about 3 parts opacifying agent.
35. The composition of one of the claims 31 to 34 wherein the opacifying agent and the superabsorbent polymer are present in a weight ratio of 1 part opacifying agent to about 2 to 4 parts superabsorbent polymer.